ABSTRACT

BACKGROUND:

Ocular trauma is one of the major causes of ocular morbidity & blindness, especially in paediatric & young adult population. The delicate nature of the eyes make it prone for an irreversible damage and permanent visual impairment even with trivial trauma.

AIMS AND OBJECTIVES

To validate the predictive value of the Ocular Trauma score in open globe injuries.

Study Period 1 YEAR

Study Design Prospective cohort study.

Material / Selection of Subject 100 patients with open globe injuries more than 5 years of age whose general condition is stable.

Methods

On initial evaluation raw score based on the initial visual acuity is assigned to the patients with open globe injury. From this initial raw score final value obtained by subtracting points for: globe rupture, endophthalmitis, perforating injury (with both an entry and exit wound), retinal detachment, and relative afferent pupillary defect (RAPD): .Once the raw score sum has been calculated, find the relevant category in OTS Table and the corresponding OTS score is calculated. For each OTS score, OTS Table gives the estimated probability of each follow-up visual acuity category which is informed to the patient.Vision at 6 weeks is reassessed and correlated with the OTS using statistical analysis

RESULTS:

In our study of 100 patients with open globe injury, young adult males(75%) were commonly affected. Most of the patients presented within 24 hours(84%) of injury. Sharp objects(47%) were the most common mode of injury. The prognosis was poor in patients with globe rupture following blunt injury. Right eye(65%) was more commonly injured than left eye in our study. Immediate surgical intervention was done in majority of the cases whereas self sealed, minor, clear corneal wounds without leak were conservatively((4%) managed. OTS was calculated using Initial visual acuity, with or without perforating injuries and globe rupture, presence or absence of afferent pupillary defect and endophthalmitis. Majority of the patients had a Ocular trauma score of 3 or 2. Visual acuity correlation at the end of 6 weeks based on OTS values was statistically significant($P<0.001$). High OTS value indicates a good visual acuity at the time of presentation and it has a statistically significant result for the visual acuity at 6 weeks post injury. Perforating globe injury, globe rupture, endophthalmitis, RAPD were associated with a negative predictive value of worse visual prognosis.

CONCLUSION:

Ocular Trauma Scoring for open globe injuries at the time of presentation helps in counselling and is a valuable tool in explaining the prognosis to the patients.

KEY WORDS:

OCULAR TRAUMA SCORE, VISUAL PROGNOSIS, OPEN GLOBE INJURY